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Towards Integrated Management of Regional Marine Protected Area Networks

A Case Study of Regime Interaction in the Southern Ocean

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Abstract

Marine protected areas (MPAs) are an important tool for protecting marine ecosystems both within and beyond national jurisdiction, but the integrated management of MPAs is challenging due to the institutional fragmentation that exists in international ocean governance at global and regional levels. In the absence of fundamental reform of international ocean governance, integrated management of MPAs can at present only be achieved through cross-sectoral cooperation and coordination between relevant international institutions. Understanding regime interaction in this context requires an analysis of both the relevant legal framework and the manner in which coordination mechanisms operate in practice. This article carries out a case study of regime interaction between the Antarctic Treaty and the Convention on the Conservation of Antarctic Marine Living Resources, as well as other relevant institutions, in order to identify the key opportunities and challenges for promoting the integrated management of regional MPA networks in practice. It will also consider how the cooperative arrangements for the regional management of the Southern Ocean may provide lessons for the development of a new legally binding instrument for the conservation and management of biodiversity in areas beyond national jurisdiction.

Keywords

Antarctic Treaty – CCAMLR – regional ocean governance – marine protected areas – cross-sectoral coordination – integrated marine management

1 Introduction*

The need for integration in oceans management is implicitly recognised in the preamble to the 1982 United Nations Convention on the Law of the Sea which famously proclaims that “the problems of ocean space are closely interrelated and need to be considered as a whole.” More explicit acknowledgement of this objective is found in resolutions of the United Nations General Assembly which call for “an integrated, interdisciplinary and intersectoral approach [and] the need to improve cooperation and coordination at the national, regional and global levels, in accordance with the Convention, to support and supplement the efforts of each State in promoting the implementation and observance of the Convention and the integrated management and sustainable development of the oceans and seas.”¹ The importance of taking an integrated approach to oceans management was also stressed in the First Integrated Global Oceans Assessment in 2015, which concluded that “the sustainable use of the oceans cannot be achieved unless the management of all sectors of human activities affecting the ocean is coherent.”²

Integrated oceans management is particularly important when considering the designation and management of marine protected areas (MPAs). MPAs have become a key tool in promoting marine environmental protection³ and they are part of a trend away from “traditional silo-structured management focussing on single species or sector”⁴ towards “an integrated approach to management that considers the entire ecosystem, including humans.”⁵ The development of coherent and representative networks of MPAs has been embraced

* This article was first presented at the Fifth International Conference on the Law of the Sea held in Seoul, Korea on 3 to 4 December 2020 and its publication has been supported by the Korean Society of International Law.

- 1 United Nations General Assembly Resolution 75/239 (31 December 2020) preamble.
- 2 Summary of the first global integrated marine assessment, UN Document A/70/112 (2015), at para. 40, which continues: “this requires taking into account the effects on ecosystems of each of the many pressures, what is being done in other sectors and the way that they interact.” This message was reiterated by the Second Global Oceans Assessment April; United Nations, *The Second World Oceans Assessment*, Volume I (April 2021), at 5.
- 3 See e.g., Convention on Biological Diversity COP Decision X/2 (2010), Annex, Target 11; Transforming our World: the 2030 Agenda for Sustainable Development, United Nations General Assembly Resolution 70/1 (25 September 2015) Goal 14.2.
- 4 R. D. Long, et al, *Key Principles of Marine Ecosystem-Based Management*, 57 *Marine Policy* 53–60 (2015), at 53.
- 5 *Ibid.*, at 54, citing the definition of the Communications Partnership for Science and the Sea. See also Convention on Biological Diversity COP Decision V/6 (2000).

as a key objective of regional oceans governance⁶ as part of broader efforts to “develop integrated, ecosystem-based regional ocean policies and strategies for sustainable use of marine and coastal resources, paying close attention to blue growth.”⁷ To be effective, MPAs must address all threats by all relevant actors to the marine features that are protected.

Despite widespread support for this objective, achieving the effective and integrated management of MPA networks is a significant challenge in an international governance framework which is characterised by institutional fragmentation, particularly in areas beyond national jurisdiction.⁸ Issues are often regulated on a sectoral basis; different institutions deal with fisheries, shipping, waste disposal, species protection, etc. This sectoral approach is designed to ensure the involvement of appropriate “expertise in a particular area, which can be important when dealing with technical issues.”⁹ Moreover, specialisation in this context “accommodates various needs and concerns of the states engaged in international law-making”¹⁰ and to some extent regime fragmentation at the international level reflects the allocation of competences between national government departments.¹¹ At the same time, specialisation has its drawbacks. Firstly, only states which are party to the relevant sectoral treaty will be bound to comply, meaning that the parties may have to reach out to a range of other actors in order to ensure the effectiveness of any specialist measures they adopt. Secondly, the fact that there is no hierarchy between different

- 6 E.g., OSPAR Recommendation 2003/3 on a network of marine protected areas; HELCOM Recommendation 35/1 (2014); 1995 Protocol concerning specially protected areas and biological diversity in the Mediterranean; 1990 Protocol concerning specially protected areas and wildlife in the wider Caribbean region; 1985 Protocol concerning protected areas and wild fauna and flora in the Eastern African region; 1989 Protocol for the conservation and management of protected marine and coastal areas of the South-East Pacific.
- 7 United Nations Environment Programme, *Regional Seas Strategic Directions (2017–2020)* (Regional Seas Reports and Studies No 201, 2015), at 2.
- 8 See N. Oral, ‘The Institutional Schizophrenia of Ocean Governance through the lens of the conservation of biological diversity in areas beyond national jurisdiction’, in S. Trevisanut, et al (Eds.), *Regime Interaction in Oceans Governance: Problems, Theories and Methods*, 52–84 (Brill, Leiden, 2020).
- 9 J. Harrison, *Making the Law of the Sea* (Cambridge University Press, Cambridge, 2011), at 237.
- 10 G. Hafner, *Pros and Cons Ensuing from Fragmentation of International Law*, 25 Michigan Journal of International Law 849–863 (2004), at 858.
- 11 E. Hey, ‘Regime Interaction and Common Interests in Regulating Human Activities in Areas beyond National Jurisdiction’ in S. Trevisanut, et al (Eds.), *Regime Interaction in Oceans Governance: Problems, theories and methods*, 85–123 (Brill, Leiden, 2020), at 101; R. Billé, et al, *Regional Oceans Governance: Making Regional Seas Programmes, Regional Fishery Bodies and Large Marine Ecosystems Mechanisms Work Better Together* (UNEP Regional Seas Reports and Studies No 197, 2016), at 110.

sectoral institutions – with each international body operating autonomously subject to its own mandate, membership and powers – raises the possibility of incoherence, or worse still incompatibility, between the resulting regulations. Even when treaty bodies have compatible functional aims, tensions can still arise due to “the different approaches that these regimes take to framing the what, that is in determining the how and the who” of international regulation.¹²

In the absence of fundamental reform of international ocean governance, integrated management of MPAs can at present only be achieved through cross-sectoral cooperation and coordination between relevant international institutions. One way of framing such activities is as a question of “regime interaction” which can be understood as “the situation where rules, institutions and the operation of one legal regime is affected by another legal regime.”¹³ It is important to appreciate that analysing regime interaction is not simply a matter of studying the formal legal relationship between distinct sets of legal instruments, but rather it requires an evaluation of the ongoing engagement between institutions in order to understand what opportunities and challenges arise in the application of the legal tools that are available.

With this in mind, this article explores the development of integrated regional networks of MPAs through a case study of regime interaction in the Southern Ocean. In many ways, this region is unique, not only because of its complex and fragile ecosystems, but also because of the *sui generis* political and legal arrangements to oversee international cooperation in this region.¹⁴ The Antarctic Treaty System is composed of a number of related, but independent, treaties and associated instruments¹⁵, which provide the basis for regulating human activities on the Antarctic continent and the surrounding marine environment. Because of the fragility of the Antarctic environment and the unique assemblage of species and habitats which are found there, states

12 Hey, *supra* note 11, at 87.

13 See S. Trevisanut, et al, ‘Regime Interaction in Ocean Governance’, in S. Trevisanut et al (Eds.), *Regime Interaction in Oceans Governance: Problems, Theories and Methods*, 1–21 (Brill 2020), at 4.

14 See generally A. Schram Stokke and D. Vidas (Eds.), *Governing the Antarctic: The Effectiveness and Legitimacy of the Antarctic Treaty System* (Cambridge University Press, Cambridge, 1996); F. Francioni and T. Scovazzi (Eds.), *International Law for Antarctica* (Kluwer Law International, The Hague, 1996); G. Triggs and A. Riddell (Eds.), *Antarctica: Legal and Environmental Challenges for the Future* (British Institute of International and Comparative Law, London, 2007).

15 See 1991 Environment Protocol to the Antarctic Treaty (Protocol), Article 1(e) which defines the Antarctic Treaty System as “the Antarctic Treaty, the measures in effect under that Treaty, its associated separate international instruments in force and measures in effect under those instruments.”

involved in the region have underlined the importance of taking environmental protection measures in order to safeguard one of the last great wildernesses on the planet. As a result, the regional institutions responsible for regulating activities in the Southern Ocean have often adopted innovative conservation measures. Despite significant convergence over common values in the region, cooperation is not always straightforward.¹⁶ Indeed, recent years have seen a rise in tensions within the regional institutions, with disagreement over the precise objectives to be pursued and the manner of their implementation. This has been particularly the case in relation to the designation and management of MPAs, as discussed below. At the same time, the stakes of cooperation are increasing, with climate change posing a particularly significant threat to the region due to the retreat or collapse of ice shelves, accompanied by increasing sea levels and water temperatures¹⁷, all of which have an impact on marine and terrestrial life.¹⁸

In light of these challenges, the purpose of this article is to consider the governance arrangements for marine environmental protection in the Antarctic region, analysing the normative and institutional frameworks for the development of MPAs in the Southern Ocean and how these institutions interact in practice. It will consider the procedures developed under the Antarctic Treaty, the Protocol on Environmental Protection and the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) for the designation and management of MPAs, as well as how the institutions established under these different instruments interact in order to pursue integrated oceans management in the Southern Ocean. It will then go on to consider the broader challenges of ensuring cooperation between regional institutions and other relevant international organisations whose mandate includes the regulation of activities within the Southern Ocean, with a focus on the International Maritime Organisation as the global body responsible for regulating shipping. Finally, in conclusion, the article will consider how the cooperative arrangements for the regional management of the Southern Ocean may provide lessons

16 L. Cordonnery, et al, *Nexus and Imbroglia: CCAMLR, the Madrid Protocol and Designating Antarctic Marine Protected Areas in the Southern Ocean*, 30 *International Journal of Marine and Coastal Law* 727–764 (2015), at 760.

17 See generally Scientific Committee on Antarctic Research, *Antarctic Climate Change and the Environment* (2009); Intergovernmental Panel on Climate Change, *Special Report on Oceans and the Cryosphere in a Changing Climate* (2019).

18 The precise impacts are however difficult to predict and some species may in fact benefit from climate change; see Scientific Committee on Antarctic Research, *Antarctic Climate Change and the Environment – 2019 Update* (2019), at 6.

for the development of a new legally binding instrument for the conservation and management of biodiversity in areas beyond national jurisdiction.

2 Regional Ocean Governance in the Southern Ocean

2.1 *The Antarctic Treaty and the Protocol on Environmental Protection*

Regional cooperation in relation to Antarctica is primarily based upon the 1959 Antarctic Treaty, which was designed to curtail territorial disputes relating to the continent and its resources. The basic principle of the Treaty is that “Antarctica shall be used for peaceful purposes only” and the treaty goes on to suspend any claims to sovereignty over Antarctica whilst the treaty is in force.¹⁹ The Treaty applies to “the area south of 60° South Latitude, including all ice shelves”, which means that it covers large portions of the Southern Ocean. Yet, as a result of the suspension of claims, there are no coastal states in the traditional sense of that term; rather states cooperate based upon their overall interests in the region. Today, there are 54 parties to the Treaty, which includes the original 12 countries who participated in the negotiations (namely Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, Russia, the UK, and the USA) and a larger number of states who have since acceded to the instrument.

The primary body established under the Antarctic Treaty is the Consultative Meeting (ATCM)²⁰ which has the power to develop specific measures to further the objectives of the Treaty.²¹ Unlike many international treaties, not all parties to the Antarctic Treaty are permitted to fully participate in the ATCM. Rather, the ATCM is open to the contracting parties who were original signatory states to the Antarctic Treaty and other acceding contracting parties “during such times as that contracting party demonstrates its interest in Antarctica by conducting substantial scientific research activity there, such as the establishment of a scientific station or the despatch of a scientific expedition.”²² Currently there are 29 Consultative Parties.²³ The other parties are invited to attend meetings of the ATCM, but they cannot participate in decision-making.

19 Antarctic Treaty, Article IV.

20 Since 1994, meetings of the ATCM have taken place on an annual basis.

21 Antarctic Treaty, Articles IX(1) and (4).

22 Antarctic Treaty, Article IX(2). Since 1983, such states have been permitted to attend as observers.

23 Venezuela applied for consultative status in 2018, but it was rejected; ATCM XLI Report (2018), at para. 34.

One criticism of this system is that “those States who can pay for themselves are eligible but those who are poor will never have a chance”²⁴, but it has been defended by the assertion that “it makes sense that States that have a special knowledge and interest have the prime responsibility to govern the continent” and “it is not possible to disregard the claims aspect ... and this is a fact that is recognised by the Treaty itself.”²⁵ Nevertheless, the exclusive nature of the regime sits uneasily with the recognition in the preamble of the Treaty that “it is in the interest of all mankind that Antarctica shall be used exclusively for peaceful purposes” and in the past it has led to some states claiming that the Consultative Parties were abusing their dominant position to the detriment of the international community.²⁶ These criticisms underline the underlying political character of treaty regimes and the role they play in determining which states have a voice in decision-making.²⁷

The ATCM operates by unanimity²⁸, which means that decision-making can be slow and any single participant can effectively veto the adoption of measures, decisions and resolutions.²⁹ Moreover, the entry into force of measures requires the approval of all Consultative Parties³⁰, which reiterates the consensual nature of the regime.

Although the ATCM is not recognised by UNEP as a relevant regional seas body³¹, the ATCM clearly has a mandate to adopt measures for environmental

24 M. Jacobsson, ‘The Antarctic Treaty System: Future Challenges’, in G. Triggs and A. Riddell (Eds.), *Antarctica: Legal and Environmental Challenges for the Future*, 1–16 (British Institute of International and Comparative Law, London, 2007), at 15.

25 *Ibid.*, at 16.

26 See discussion in D. Vidas, ‘The Antarctic Treaty System in the International Community: An Overview’, in O. Schram Stokke and D. Vidas (Eds.), *Governing the Antarctic: The effectiveness and legitimacy of the Antarctic Treaty System*, 35–60 (Cambridge University Press, Cambridge, 1996), at 49–58.

27 See Hey, *supra* note 11, at 103–104.

28 ATCM Rules of Procedure, Rule 24: “Measures, Decisions and Resolutions, as referred to in Decision 1 (1995), shall be adopted by the Representatives of all Consultative Parties present.”

29 See K. Bastmeijer, *Introduction: The Madrid Protocol 1998–2008: The Need to Address the Success Syndrome*, 8 *Polar Journal* 230–240 (2018), at 237.

30 Antarctic Treaty, Article IX(4).

31 On its website explaining the regional seas programme, UNEP identifies CCAMLR as a relevant body for the protection of the marine environment in the Antarctic region; see <https://www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/antarctic>. Yet, as noted by Molenaar, in practice the competence of CCAMLR is far more limited compared to many regional seas bodies; E. J. Molenaar, ‘Participation in Regional Fisheries Management Organisations’, in R. Caddell and E. J. Molenaar (Eds.), *Strengthening International Fisheries Law in an Era of Changing Oceans*, 103–130 (Hart, Oxford, 2019), at 107.

protection, including the protection of the marine environment. In this regard, the Treaty expressly recognises that the ATCM may adopt measures relating to the “preservation and conservation of living resources in the Antarctic.”³² The competence of the ATCM over both land and sea means that the ATCM is arguably well-positioned to adopt an ecosystems approach to management of the Antarctic and Southern Ocean by addressing all relevant threats. Indeed, the imperative of protecting the environment of the Antarctic continent and surrounding seas became an early priority of the ATCM. At the third meeting of the ATCM in 1964, states adopted Agreed Measures for the Conservation of Antarctic Fauna and Flora, which both regulated the taking of native mammals and birds in Antarctica, as well as designating areas of outstanding scientific interest as Specially Protected Areas “in order to preserve their unique natural ecological system.”³³ Other measures were soon adopted which developed the legal framework for the protection of the marine environment in the Antarctic, albeit in a sporadic fashion.³⁴ As a result, the Treaty must be understood in light of this broader body of resolutions, decisions and measures, many of which are treated as legally binding if subsequently approved by all relevant parties.³⁵

One of the most important developments under the Antarctic Treaty is the adoption of the 1991 Protocol on Environmental Protection which is designed to provide a “comprehensive regime for the protection of the Antarctic environment and dependent and associated ecosystems ...”³⁶ The Protocol expressly recognises “the intrinsic value of Antarctica”³⁷ and it purports to “designate Antarctica as a natural reserve devoted to peace and science.”³⁸ This designation does not prohibit activities in Antarctica in general, but rather calls for management of all activities in order to “limit adverse impacts on the Antarctic environment and dependent and associated ecosystems.”³⁹ The Protocol introduces a number of important rules relating to the protection of the environment, with annexes on environmental impact assessment; the conservation of Antarctic flora and fauna; waste disposal and waste management; prevention of marine pollution, including pollution from vessels;

32 Antarctic Treaty, Article IX(1)(f).

33 1964 Agreed Measures for the Conservation of Antarctic Fauna and Flora, Article 1.

34 See also the 1972 Convention on the Conservation of Antarctic Seals, which is considered part of the Antarctic Treaty System.

35 Resolutions are hortatory whereas measures (directed at states) and decisions (concerning the internal organisation of the ATCM) are legally binding; see ATCM Decision 1 (1995).

36 Protocol, preamble.

37 Protocol, Article 3(1).

38 Protocol, Article 2. In doing so, Article 7 of the Protocol introduces a prohibition on ‘any activity relating to mineral resources.’

39 Protocol, Article 3(2)(a).

area protection and management⁴⁰; and liability.⁴¹ The explicit inclusion of rules relating to the prevention of marine pollution reinforces the mandate of the Antarctic Treaty over marine environmental protection in the region and the Protocol makes clear that “activities in the Antarctic Treaty Area shall be planned and conducted so as to avoid ... significant changes in [*inter alia*] marine environments.”⁴²

The Protocol also establishes a new body – the Committee on Environmental Protection (CEP) – to advise on, *inter alia*, the state of the Antarctic environment, the need to update, strengthen or improve measures for the protection of the environment and the means of minimising and mitigating environmental impacts of activities in the Antarctic Treaty area.⁴³ All parties to the Protocol are members of CEP⁴⁴ whether or not they are a Consultative Party to the Antarctic Treaty. However, it is the ATCM which remains the primary decision-maker under the Protocol and it is tasked with “defining the general policy for the comprehensive protection of the Antarctic environment and dependent and associated ecosystems” and adopting further measures for the implementation of the Protocol in accordance with Article 9 of the Antarctic Treaty.⁴⁵ It follows that the Protocol does not radically alter the dynamics of the governance regime under the Antarctic Treaty or the dominance of the Consultative Parties in determining the progressive development of the regime.

Protected areas are one of the tools at the disposal of the ATCM and the powers to establish Antarctic Specially Protected Areas (ASPA) in order “to protect outstanding environmental scientific, historic, aesthetic or wilderness values ... or ongoing or planned scientific research”⁴⁶ expressly apply to “any marine area.”⁴⁷ The designation process is commenced by a party submitting a proposed management plan to the ATCM⁴⁸, although as discussed in the following section, further procedural obligations may apply in relation to proposals for marine ASPAs. To date, six wholly marine ASPAs have been adopted – Chile Bay (ASPA 144); Port Foster (ASPA 145); Western Bransfield Strait (ASPA 152); Eastern Dallman Bay (ASPA 153); Terra Nova Bay (ASPA 161) – along with a further 14

40 This Annex was adopted by way of Recommendation XVI-10 (1991). The Annex entered into force in 1998 following acceptance by all Consultative Parties.

41 This Annex was adopted by way of Measure 1(2005), but it has not yet entered into force.

42 Protocol, Article 3(2)(b)(iii).

43 Protocol, Article 12.

44 Protocol, Article 11(2).

45 Protocol, Article 10(1).

46 Protocol, Annex v, Article 3(1).

47 Protocol, Annex v, Article 2.

48 Protocol, Annex v, Article 5(1). Detailed information concerning the contents of the Management Plan are indicated in Article 5(3).

ASPAS which have a marine component to them.⁴⁹ Once designated, “entry into ASPAS shall be prohibited except in accordance with a permit...”⁵⁰ This establishes a high-level of protection as the issuance of permits may only be issued in accordance with the agreed management plans for the ASPA.⁵¹

Another form of protected area that may be established by the ATCM is an Antarctic Specially Managed Area (ASMA) which is an area requiring states to cooperate in order to minimise environmental impacts.⁵² In general, entry into ASMAs does not require a permit, although ASMAs may overlap with ASPAs.⁵³ Activities in an AMSA must be managed according to an agreed management plan, which may include the regulation of cumulative environmental impacts.⁵⁴ In practice, a number of ASMAs have a marine component to them⁵⁵, although it has been noted in general that the use of ASPAs and ASMAs to date only protects small, coastal areas that make “little contribution to the development of a representative system of MPAs.”⁵⁶ Nevertheless, the general mandate of the ATCM under the Protocol suggests that it is competent to address all aspects of marine environmental protection and it could in theory pursue an integrated approach to the management of MPAs in the Southern Ocean, should it choose to make greater use of its powers. At the same time, its ability to do so is affected by a number of considerations.

Firstly, it is significant that the Protocol is an independent treaty and therefore it is only binding on those states who become a party. The entry into force conditions of the Protocol required all Consultative Parties to ratify, accept or accede to the treaty in order to ensure that these key actors were all bound by its provisions⁵⁷, but it does not follow that all parties to the Antarctic Treaty are also parties to the Protocol. Early on, the ATCM called upon non-consultative

49 Indeed, there are several of these ASPAs which have a significant marine component, e.g. Cape Washington and Silverfish Bay (97.67% marine); South Bay (97.18% marine); Emperor Island (96.18% marine).

50 Protocol, Annex v, Article 3(4).

51 Protocol, Annex v, Article 7(1).

52 Protocol, Annex v, Article 4.

53 Protocol, Annex v, Article 4(3)–(4).

54 Protocol, Annex v, Article 4(2)(a).

55 See discussion below.

56 Report of the CCAMLR Workshop on Marine Protected Areas (2005), at para. 44. See also The Netherlands, *The Role of the Antarctic Treaty Consultative Meeting in Protecting the Marine Environment through Marine Spatial Protection*, ATCM Document IP 49 (2014); K. N. Scott, ‘Marine Protected Areas in the Southern Ocean’, in E. J. Molenaar, et al (Eds.), *Law of the Sea and the Polar Regions: Interactions between global and regional regimes*, 113–137 (Brill, Leiden, 2013), at 131.

57 Protocol, Article 23(1).

parties to the Antarctic Treaty to become a party to the Protocol as soon as possible, in particular to avoid adverse impacts of tourist activities on the continent and its surrounding seas.⁵⁸ However, at the time of writing, there are still a number of parties to the Antarctic Treaty which have not become a party to the Protocol, demonstrating the limits of such pleas and the partial nature of the legal regime in place.

Nor is this a problem that is limited to the interaction of the Treaty and the Protocol. More generally, the Treaty also makes clear that “nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of rights, of any State under international law with regard to the high seas within that area”⁵⁹, meaning that it does not completely displace the traditional framework of the law of the sea.⁶⁰ This is particularly significant as it means that the rights of non-parties to exercise their high seas freedoms in the Southern Ocean remain, in spite of the environmental measures developed under the Antarctic Treaty. This means that the parties to the Antarctic Treaty may need to reach out to third states if they are to effectively manage activities in the Southern Ocean in an integrated manner. This is recognised in the Treaty itself which provides that “each of the contracting parties undertakes to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity in Antarctica contrary to the principles and purposes of the present Treaty.”⁶¹ Like its parent treaty, the Protocol also calls upon parties to encourage other states to refrain from undermining the measures adopted under the Protocol and it provides that “the [ATCM] shall draw the attention of any State which is not a party to this Protocol to any activity undertaken by that State, its agencies, instrumentalities, natural or juridical persons, ships, aircraft, or other means of transport which affects the implementation of the objectives and principles of this Protocol.”⁶² It follows that the effectiveness of the Antarctic Treaty and the Protocol to achieve their marine environmental objectives will depend not only upon the measures that are adopted by the parties, but also on engagement with non-parties, either

58 Resolution 6 (1999).

59 Antarctic Treaty, Article vi.

60 There are important questions that arise concerning the extent of high seas in the Southern Ocean, given the contested claims to territory in the Antarctic – these issues go beyond the scope of this paper, but they have been addressed extensively in the literature. See e.g. D. Vidas, ‘The Antarctic Treaty System and the law of the sea: a new dimension introduced by the Protocol’ in O. Schram Stokke and D. Vidas (Eds.), *Governing the Antarctic: The effectiveness and legitimacy of the Antarctic Treaty System*, 61–90 (Cambridge University Press, Cambridge, 1996).

61 Antarctic Treaty, Article x.

62 Protocol, Article XIII(5).

directly or through other relevant international organisations. In this respect, it is important to recognise that the ATCM is not the only regional body with an interest in developing MPAs in the Southern Ocean.

2.2 *The Commission for the Conservation of Antarctic Marine Living Resources*

Another key instrument in the region is CCAMLR, which establishes a specific institutional framework for the management of marine living resources in the Southern Ocean. CCAMLR was spurred by a growing interest in developing a krill fishery in the Southern Ocean and the recognition of the need for careful management of such an enterprise.⁶³ CCAMLR was negotiated by the Consultative Parties to the Antarctic Treaty with additional participation of the (then) two Germanies who were already engaged in or planning krill fisheries.⁶⁴ However, CCAMLR is open to participation by “any State interested in research or harvesting activities in relation to the marine living resources to which [the] Convention applies”⁶⁵ and it currently has 36 parties.

Whilst CCAMLR was principally designed to regulate fishing within the Southern Ocean, it does expressly recognise the need to “provide for the effective conservation of the marine living resources of the Antarctic ecosystem as a whole.”⁶⁶ This goal is reflected in the treaty in a number of ways.⁶⁷ Firstly, CCAMLR extends beyond the area south of 60° South latitude and also encompasses Antarctic marine living resources found “between that latitude and the Antarctic Convergence which form part of the Antarctic marine ecosystem.”⁶⁸ Secondly, the objectives of CCAMLR are defined in terms of not

63 Prior to the conclusion of CCAMLR, the ATCM adopted interim measures in Recommendation IX-2 (1977). For background, see D. L. Alverson, *Tug-of-War for the Antarctic Krill*, 8 *Ocean Development and International Law* 171–182 (1980).

64 See Molenaar, *supra* note 31. Requests from other states (namely South Korea and the Netherlands) to join the negotiations were rejected.

65 CCAMLR, Article 29. This provision goes on to provide that it is open to regional economic integration organisations which include one or more states members of the Commission, which has permitted participation of the EU in the work of the Commission.

66 ATCM Recommendation IX-2 (1977), para.III(3)(c).

67 See generally C. Redgwell, ‘Protection of Ecosystems under International Law: Lessons from Antarctica’, in A. Boyle and D. Freestone (Eds.), *International Law and Sustainable Development: Past Achievements and Future Challenges*, 205–224 (Oxford University Press, Oxford, 1999).

68 CCAMLR, Article 1. The Antarctic Convergence is defined in Article 1(4). In accordance with a statement contained in the Final Act to the Conference, the Convention will only apply to areas within the national jurisdiction of parties with the consent of those parties. This is particularly relevant to the Kerguelen and Crozet Islands which are under the sovereignty of France.

only preventing the decrease of harvested populations to levels below those which ensure their stable recruitment, but also to maintain “ecological relationships between harvested, dependent and related populations of Antarctic marine living resources” and the “prevention of changes or minimization of the risks of changes in the marine ecosystem which are not potentially reversible over two or three decades.”⁶⁹ This emphasis on ecosystems distinguished the Convention from many other regional fisheries treaties in place at the time.⁷⁰

A Commission is established to facilitate research into Antarctic marine ecosystems and to adopt binding conservation measures to achieve the objectives of the Convention.⁷¹ CCAMLR mirrors the approach taken in the Antarctic Treaty by providing that membership of the Commission is limited to those original states who participated in the conclusion of the Convention and any party which “is engaged in research or harvesting activities” at a particular point in time. Currently, of the 36 parties to the Convention, only 26 of them are members of the Commission.⁷² Moreover, the Commission also operates by consensus⁷³ and whilst conservation measures become binding 180 days after their adoption, an individual Member may nevertheless object to a measure within 90 days in order to prevent the application of a measure to it.⁷⁴

The Commission has adopted a large number of decisions which give effect to an ecosystem approach, including in relation to the protection of associated species and habitats, such as sea birds⁷⁵, and so-called vulnerable marine ecosystems.⁷⁶ Moreover, the Commission has also used its powers under the Convention for the “designation of the opening and closing of areas, regions or sub-regions for the purposes of scientific study or conservation, including

69 CCAMLR, Article 2.

70 See particularly discussion Redgwell, *supra* note 69, at 214. The First Performance Review of CCAMLR, however, concluded that ‘the distinction between CCAMLR and RFMOs has lessened in recent years’; *CCAMLR Performance Review Panel Report* (1 September 2008) para. 22.

71 CCAMLR, Article 9. There is a debate over the precise status of CCAMLR and whether it can be considered a regional fisheries management organisation, a regional seas body, or a *sui generis* body; see e.g. Molenaar, *supra* note 31, at 107.

72 See <https://www.ccamlr.org/en/organisation/who-involved-ccamlr>.

73 CCAMLR, Article 12.

74 CCAMLR, Article 9(6).

75 E.g. CCAMLR Conservation Measure 25-02 (2018); CCAMLR Conservation Measure 25-03 (2019).

76 E.g. CCAMLR Conservation Measure 22-06(2019); CCAMLR Conservation Measure 22-09 (2012).

special areas for protection and scientific study”⁷⁷ to develop a number of different types of area-based management tools.

Firstly, the Commission has identified a number of sites as part of its CCAMLR Ecosystem Monitoring Programme (CEMP) which may be managed according to a management plan adopted by the Commission.⁷⁸ There are currently twenty such sites in operation, mostly to monitor penguin colonies.⁷⁹

Secondly, Special Areas of Scientific Study (SASS) may also be proposed by Members in areas where ice-shelves have collapsed or are in retreat.⁸⁰ Such sites are automatically designated for a period of up to two years following a proposal from a single Member State and special protection measures apply during that period. This provisional designation is followed by a consideration of more detailed information on the extent and characteristics of the SASS⁸¹ and designation may be extended for a further 10 years upon agreement of the Commission.⁸² Once designated, only research fishing in accordance with agreed research plans can be carried out in a SASS.⁸³

Thirdly, and perhaps most importantly, the Commission has also developed a General Framework for the Establishment of CCAMLR Marine Protected Areas (MPAs)⁸⁴ which provides for the development of a “representative system of Antarctic Marine Protected Areas with the aim of conserving marine biological diversity in the Convention Area.”⁸⁵ The General Framework sets out the overall objectives of a MPA network and it emphasises that MPAs should be adopted “on the basis of the best available scientific advice.”⁸⁶ To date, CCAMLR has designated two MPAs, namely the South Orkney Islands

77 CCAMLR, Article 9(2)(g).

78 See CCAMLR Conservation Measure 91-01 (2004).

79 See <https://www.ccamlr.org/en/science/ceмп-sites>.

80 CCAMLR Conservation Measure 24-04 (2017). Two sites have been designated to date: an area adjacent to the Larson C Ice Shelf and an area adjacent to Pine Island Glacier.

81 *Ibid.*, at paras. 4–5.

82 *Ibid.*, at para. 10. At the 2020 Meeting of the Commission, Members failed to reach consensus on the designation of Pine Island Glacier as a stage 2 SASS; see CCAMLR 39 Report (2020), at para. 8.12. The Report raises the prospect of a Member submitting a proposal for redesignation of a Stage 1 SASS.

83 CCAMLR Conservation Measure 24-04 (2017), at paras. 8, 12, 14.

84 CCAMLR Conservation Measure 91-04 (2011). For background to this measure and the various meetings and workshops on MPA designation in the Southern Ocean, see C. M. Brooks, *Competing Values on the Antarctic High Seas: CCAMLR and the Challenge of Marine-Protected Areas*, 3 *The Polar Journal* 277–300 (2013), at 280–282.

85 CCAMLR Conservation Measure 91-04 (2011), preamble.

86 *Ibid.*, at para. 2.

Southern Shelf MPA⁸⁷ and the Ross Sea MPA.⁸⁸ At the time of its adoption, the South Orkney Islands MPA was heralded as the first high seas MPA⁸⁹ and the Ross Sea MPA was for a time the world's largest MPA⁹⁰, underlining the significance of the actions by the Commission in this area. Under the General Framework, MPAs should be accompanied by a research management plan⁹¹, although the Commission has struggled to achieve consensus of these documents for the two existing MPAs.⁹² Indeed, several other MPA proposals relating to East Antarctica, the Weddell Sea and Domain 1 of the Antarctic Peninsula have evaded consensus for a number of years, in large part to objections from the Russian Federation and the People's Republic of China⁹³, although it must be noted that a much broader range of states have expressed concerns about the process for designating MPAs at different stages.⁹⁴ These disagreements illustrate the challenges of developing effective environmental measures in a system which relies upon consensus.⁹⁵

The relationship between the Commission and non-parties is also complex. Whilst treaties do not normally bind third states⁹⁶, if non-parties to CCAMLR are parties to the 1995 United Nations Fish Stocks Agreement, they will be required to refrain from authorising vessels from fishing in the CCAMLR

87 CCAMLR Conservation Measure 91-03 (2009). This measure prohibits all fishing within the MPA, with the exception of 'scientific fishing research activities agreed by the Commission.' The measure also prohibits discharges and dumping from fishing vessels, as well as transshipment activities involving fishing vessels.

88 CCAMLR Conservation Measure 91-05 (2016). The MPA encompasses a General Protection Zone, a Special Research Zone and a Krill Research Zone, with different restrictions applicable to each zone.

89 See e.g. BRITISH ANTARCTIC SURVEY, NEWS: SOUTH ORKNEYS MARINE PROTECTED AREA (20 November 2009), available at <https://www.bas.ac.uk/media-post/south-orkneys-marine-protected-area/>.

90 MATT MCGRATH, WORLD'S LARGEST MARINE PROTECTED AREA DECLARED IN ANTARCTICA, available at <https://www.bbc.co.uk/news/science-environment-37789594>. It has since been surpassed, at least in terms of size, by the Marae Moana MPA adopted by the Cook Islands in 2017.

91 CCAMLR Conservation Measure 91-04 (2011), at para. 5.

92 See e.g. discussions at CCAMLR 38 Report (2019), at paras. 6.25–6.40.

93 See e.g. *ibid.*, at paras. 6.41–6.55.

94 See Brooks, *supra* note 84, at 288–289. Brooks notes that "fishing interests do seem to correlate with concerns; *ibid.*, at 294.

95 Nor is this the only issue where consensus has been lacking; see e.g. the discussion on shark finning in CCAMLR 38 Report (2019), at paras. 3.16–3.19. More broadly on factors influencing consensus within the Commission, see S. T. Sykora-Bodie and T. H. Morrison, 'Drivers of consensus-based decision-making in international environmental regimes: Lessons from the Southern Ocean', 29 *Aquatic Conservation* 2147–2161 (2019).

96 1969 Vienna Convention on the Law of Treaties, Article 34.

area unless they agree to apply the conservation and management measures adopted by the Commission.⁹⁷ The special status attributed to conservation and management measures of regional fisheries management organisations under the Fish Stocks Agreement promotes the comprehensive application of the measures adopted by these bodies, thereby increasing their effectiveness. Yet, this obligation under the Fish Stocks Agreement only applies to the authorisation of fishing and it cannot ensure that other activities by a state in a different capacity may not undermine measures adopted by the Commission in pursuit of its broad environmental mandate, for example permitting the landing or import of fish caught in contravention of CCAMLR rules.⁹⁸ To this end, Article 22 of CCAMLR provides that “the Commission shall draw the attention of any State which is not a Party to this Convention to *any* activity undertaken by its nationals or vessels, which, in the opinion of the Commission, affects the implementation of the objective of this Convention.”⁹⁹ This provision underlines the broader engagement that may be required by the Commission in order to ensure the effectiveness of its measures.

Furthermore, the mandate of the Commission is clearly much narrower than that of the ATCM and so it cannot ensure that vulnerable marine ecosystems are fully protected from all threats. To that end, it must engage in cooperation with other bodies in order to ensure integrated management of MPAs.

3 Intra-Regional Cooperation and Coordination within the Antarctic Treaty System

3.1 *Cooperation and Coordination in the Mandates of Regional Institutions*

The previous section has highlighted the main regional instruments and institutions involved in the protection of the marine environment in the Southern Ocean. Insofar as the mandates of these institutions overlap, regime interaction will be necessary in order to promote the integrated protection of Antarctic marine ecosystems.

The starting point for understanding the relationship between the ATCM and the Commission is the fact that CCAMLR is considered as “an integral

97 1995 United Nations Fish Stocks Agreement, Article 17(2). *See also* Article 8(4).

98 E.g. CCAMLR Conservation Measure 10–03 (Port inspections of fishing vessels carrying Antarctic marine living resources); Conservation Measure 10–05 (Catch documentation scheme for *Dissostichus* spp.).

99 CCAMLR, Article 10 (emphasis added). *See e.g.* CCAMLR Resolution 14/XIX (Catch Documentation Scheme: implementation by Acceding States and non-Contracting Parties).

part¹⁰⁰ of the broader Antarctic Treaty System.¹⁰¹ As a result, certain interactions between these two institutions have been built into the legal framework.

Firstly, CCAMLR calls for an alignment of the obligations of CCAMLR parties with obligations under the Antarctic Treaty. Thus, CCAMLR parties have accepted, at least in principle, to refrain from engaging in activities in the Antarctic treaty area contrary to the principles and purposes of the Antarctic Treaty.¹⁰² Indeed, CCAMLR goes further and provides that parties are bound by the obligations in Articles 1 (requiring Antarctica to be used for peaceful purposes only), 4 (freezing territorial claims over Antarctica), 5 (prohibiting nuclear explosions and the disposal of nuclear waste in Antarctica), and 6 (preserving the exercise of high seas freedoms in the Southern Ocean) of the Antarctic Treaty, “whether or not they are Parties to the Antarctic Treaty.”¹⁰³ These provisions ensure a certain coherency between the basic obligations of parties under both instruments. Even more pertinent to the present discussion, Article 5(2) of CCAMLR provides that “Contracting Parties which are not Parties to the Antarctic Treaty agree that, in their activities in the Antarctic Treaty area, they will observe as and when appropriate the Agreed Measures for the Conservation of Antarctic Fauna and Flora and such other measures as have been recommended by the Antarctic Treaty Consultative Parties in fulfilment of their responsibility for the protection of the Antarctic environment from all forms of harmful human interference.” This latter obligation acts as a dynamic rule of reference, whereby the obligations of CCAMLR parties will evolve as the ATCM adopts new environmental measures. Yet, what is precisely captured by this obligation is obscure. One question that arises in this context is whether CCAMLR parties are required to respect obligations under the Environment Protocol. It is not immediately obvious that a treaty instrument qualifies as a “measure ... recommended by the Antarctic Treaty Consultative Parties” but there are strong arguments why it should be, in particular as the Protocol is inherently linked to the subsequent development of such measures.¹⁰⁴ Indeed, Annex V of the Protocol dealing with protected areas was adopted as a Recommendation of the ATCM¹⁰⁵ and some of the original Annexes have also been amended through the adoption of ATCM Measures.¹⁰⁶

100 *CCAMLR Performance Review Panel Report* (1 September 2008), at para. 1.

101 *See also* 2019 Prague Declaration on the Occasion of the Sixtieth Anniversary of the Antarctic Treaty, at para. 13.

102 CCAMLR, Article 3.

103 CCAMLR, Articles 3 and 4(1).

104 Protocol, Article 10(1)(b).

105 *See* ATCM Recommendation XVI-10 (1991).

106 ATCM Measure 16 (2009).

As a result, at least parts of the Protocol would seem to squarely fall within the scope of Article 5(2) of CCAMLR. This was a view shared by the First CCAMLR Performance Review Panel which concluded that Article 5(2) “infers that elements of the Environmental Protocol, along with certain measures adopted by the ATCM, should indeed be observed by [CCAMLR parties]”¹⁰⁷ and this interpretation would certainly serve increase coordination across the two regimes.

CCAMLR also addresses ongoing institutional cooperation between the Commission and the ATCM¹⁰⁸ and the ATCM has equally encouraged “increased cooperation at the practical level between the Antarctic Treaty Consultative Meeting and the Commission for the Conservation of Antarctic Marine Living Resources.”¹⁰⁹ The ATCM and the Commission have not entered into a Memorandum of Understanding which outlines the main principles and procedures for cooperation¹¹⁰ and so cooperation takes place on an ad hoc basis. Cooperation in this respect is largely achieved by regular exchanges of observers, who present information concerning the activities of each institution. Moreover, cooperation is also explicitly built into the powers of the institutions operating under both CCAMLR and the Protocol.

For its part, when exercising its powers, the Commission is explicitly mandated to “... take full account of any relevant measures or regulations established or recommended by the Consultative Meetings pursuant to Article IX of the Antarctic Treaty ... in order that there will be no inconsistency between the rights and obligations of a Contracting Party under such regulations or measures and conservation measures which may be adopted by the Commission.”¹¹¹ This provision clearly calls for ongoing alignment of the two treaties and it could be interpreted as an obligation of result with the effect of prohibiting the Commission from adopting a measure which was incompatible with any existing measures adopted under the Antarctic Treaty. Yet, the avoidance of inconsistency must be understood as addressing direct conflicts between measures and so this provision does not necessarily demand the positive coordination of measures so ensure their overall coherence.

Similar requirements are laid down in the Protocol, albeit in slightly looser terms: “the Parties shall consult and co-operate with the Contracting Parties to the other international instruments in force within the Antarctic Treaty system and their respective institutions with a view to ensuring the achievement

107 *CCAMLR Performance Review Panel Report* (1 September 2008), at para. 6.

108 CCAMLR, Article 23(1).

109 ATCM Resolution 1 (2006).

110 Such a step has been proposed, but rejected by some consultative parties as ‘too formal’; ATCM XXXIII Report (2010), at para. 460.

111 CCAMLR, Article 9(5).

of the objectives and principles of this Protocol and avoiding any interference with the achievement of the objectives and principles of those instruments or any inconsistency between the implementation of those instruments and this Protocol.”¹¹² This provision similarly focuses on preventing inconsistency. Furthermore, in contrast to the obligation in CCAMLR, this provision of the Protocol would appear to be an obligation of conduct, which mandates cooperation, but does not dictate a particular outcome. In practice, this general obligation has been supplemented by more specific decisions of the ATCM addressing alignment. For example, the ATCM recommended in 2002 that “Parties to the Antarctic Treaty which are not Party to the Convention on the Conservation of Antarctic Marine Living Resources but which nevertheless are involved in the harvesting and trade of toothfish, consider acceding to the Convention and, in the meantime, agree voluntarily to implement the *Dissostichus* Catch Documentation Scheme.”¹¹³ This decision is hortatory, however, and it does not create legal obligations for states.

3.2 *Intra-regional Cooperation and Coordination in the Development of MPA Networks*

The opportunities and challenges of developing coordinated and coherent conservation measures are clearly illustrated by the establishment and management of MPAs in the Southern Ocean. In this context, we see express recognition of the need for early engagement between the ATCM and Commission, but it is also possible to identify some of the practical challenges of cooperation and coordination that arise when two independent regimes overlap.

Let us first consider the establishment of ASPAs and ASMA by the ATCM. When the target of protection is the marine environment, cooperation between the ATCM and the Commission is explicitly built into the procedure for the establishment of these measures; Annex v provides that “no marine area shall be designated as an ASPA or ASMA without the prior approval of the Commission for the Conservation of Antarctic Marine Living Resources.”¹¹⁴ Furthermore, proposed management plans for marine areas must be forwarded to the Commission and any comments from the Commission must be taken into account. ATCM Decision 9 (2005) clarifies that this obligation applies when there is actual harvesting or potential capability of harvesting

¹¹² Protocol, Article 5.

¹¹³ ATCM Resolution 3 (2002). This Resolution was adopted following a Resolution adopted by CCAMLR in 2000, which urged non-parties to participate in the catch documentation scheme: CCAMLR Resolution 14/XIX.

¹¹⁴ Protocol, Annex v, Article 6(2). A similar process had applied prior to the entry into force of Annex v of the Protocol; see ATCM Decision 4 (1998).

of marine living resources which might be affected by site designation, when there are provisions specified in a draft management plan which might prevent or restrict CCAMLR related activities, or when proposed designations might have implications for CEMP sites. This provision provides for a relatively strong model of cooperation as it prevents the ATCM from acting without the agreement of the Commission and it has been held up as “an example of best practice that could usefully be adopted in other regions.”¹¹⁵ Not only is this procedure valuable for ensuring discussion prior to the establishment of an MPA, but effective engagement under this procedure permits coordination to be built into the ongoing management of protected sites by the inclusion of specific provisions within a management plan that foresee an ongoing role for the Commission in the management of the area. For example, the Management Plan for the Admiralty Bay AMSA expressly provides that “harvesting of marine living resources should be conducted ... with due recognition of the important scientific and environmental values of the Area [and] all those planning to conduct marine commercial harvesting in the Area should first submit their proposal to CCAMLR” which must give its “prior approval.”¹¹⁶ This provision thus directly engages the Commission in fisheries related aspects of the ASMA. The Commission has also agreed that “each Contracting Party shall ensure that their fishing vessels ... are aware of the location and relevant management plan of all designated ASPAs and ASMAs which include marine areas...”¹¹⁷ thus reinforcing the integration of these two regimes.

It is also worth noting that Annex v doesn't just give the Commission a role in approving ASPAs and ASMAs proposed within the CEP, but the Commission may itself propose such areas.¹¹⁸ This power could provide an important tool for promoting a joined up approach to MPAs under both treaty regimes, but it does not yet appear to have been used, highlighting a gap between the legal powers available on paper and the actual practice of the parties.

Similar coordination mechanisms are also found in the procedures for designating MPAs under CCAMLR. Firstly, the procedure for developing management plans for CEMP sites makes it clear that any such measures should be coordinated with the ATCM, who are formally notified of any proposal for a CEMP

¹¹⁵ Scott, *supra* note 56, at 129. See however the comments in N. B. Gardiner, *Marine protected areas in the Southern Ocean: Is the Antarctic Treaty System ready to co-exist with a new United Nations instrument for areas beyond national jurisdiction?*, 122 *Marine Policy* 104212 (2020), at 4: “This provision has resulted in a power shift to CCAMLR Members, removing agency from the ATCM in leading its own innovative marine protection initiatives.”

¹¹⁶ Management Plan for Antarctic Specially Managed Area No. 1, section 7(v).

¹¹⁷ CCAMLR Conservation Measure 91-02 (2012).

¹¹⁸ Protocol, Annex v, Article 5(1).

management plan. Whilst the procedure does not demand the prior approval of the ATCM, it does provide that if an objection is received, “the Commission may institute such consultations as it may deem appropriate to achieve the necessary protection and to avoid interference with the achievement of the principles and purposes of, and measures adopted under, the Antarctic Treaty and other components of the Antarctic Treaty System which are in force.”¹¹⁹ This indicates a clear desire for a coordinated outcome, even if it is expressed in discretionary language. When it comes to the designation of MPAs under the General Framework adopted by CCAMLR, there is no express obligation to engage with the ATCM during the designation phase, rather the focus is on sharing “information on conservation measures establishing MPAs in the Convention Area”¹²⁰ following designation and then “endeavour[ing] to identify which actions by other elements of the Antarctic Treaty System ... should be pursued to support the specific objectives of the MPA once established.”¹²¹ This may lead to supporting measures taken by the ATCM¹²², although complementary measures have not always been forthcoming.¹²³ For example, when the South Shetland Islands MPA was adopted in 2009, the United Kingdom and Belgium proposed that the ATCM adopt complementary conservation measures within the MPA, including a prohibition of all dumping and discharges by all non-fishing vessels within the MPA.¹²⁴ Although some Consultative Parties were supportive, several objections were made, in part relating to the need to obtain advice from CEP before taking conservation measures¹²⁵, but also more broadly about the ability of the ATCM to adopt area-based measures outwith the procedures outlined in Annex v of the Protocol.¹²⁶ One option would be the establishment of new ASPAs/ASMAs in areas near, within or adjacent to CCAMLR MPAs in order to offer complementary protection¹²⁷, but it has been

119 CCAMLR Conservation Measure 91-01 (2004), at para. 8.

120 *Ibid.*, at para. 9.

121 CCAMLR Conservation Measure 91-04 (2011), at paras. 9–10.

122 See e.g. ATCM Resolution 5 (2017), at para. 3.

123 Some consultative parties have expressed frustration on this front, whilst others have argued that the ATCM cannot be expected to take action until MPA research and monitoring plans have been adopted by the Commission; see discussion in ATCM XLII Report (2019), at paras. 74–78.

124 See United Kingdom/Belgium, *Complementary Protection for Marine Protected Areas Designated by CCAMLR*, ATCM Document WP 44rev.1 (2010).

125 ATCM XXXIII Report (2010), at paras. 46 and 49.

126 ATCM XXXIII Report (2010), at para. 50.

127 See New Zealand, *Harmonisation of Marine Protection Initiatives across the Antarctic Treaty System*, ATCM Document WP 48 (2019), at 4. Alternatively, it could involve amendment of existing ASPA/AMSA management plans; *ibid.*

emphasised in ATCM discussions that “protected area designations should be based on sound science and that any decisions by CCAMLR should not automatically require complementary actions on the part of the Parties, but that the need for action would need to be considered on a case-by-case basis.”¹²⁸ These observations underline how differences in the mandate and membership of institutions can lead to tensions in practice, despite the shared objectives that are pursued by these different regimes and the express provision for cooperation in the legal instruments.

Overall, despite some acknowledgement of the need for cooperation and integration of MPAs adopted under each treaty, there is a sense that MPAs in the Southern Ocean have not been developed in an integrated and systematic manner. The First Performance Review of the Commission in 2008 called for “closer integration and understanding between these respective bodies so as to ensure a mutual understanding of their objectives, the appropriate application of management mechanisms, as well as adequate (and more efficient) data and information sharing.”¹²⁹ Some progress has been made since the first performance review, particularly through joint meetings between the Scientific Committee and CEP, including on the question of MPAs.¹³⁰ Whilst better sharing of scientific information is a vital part of integrated management, it is also important that the political bodies under the various pillars of the Antarctic Treaty System coordinate their work. In this respect, the Report of the Second CCAMLR Performance Review in 2017 noted that “enhanced communication and collaboration at the level of the Commission and the ATCM would also be beneficial”¹³¹ and it recommended “holding joint periodic meetings of CCAMLR and ATCM delegates – at a working level – to identify opportunities for coordination and cooperation on matters of mutual interest.”¹³² In this vein, some Members of the Commission have “encouraged ongoing work and discussion with the ATCM and CEP on [ASPAs and ASMAs], including identifying links to and harmonising, as relevant, the management plans of managed or protected areas that occur within CCAMLR MPAs, with the provisions of the Research and Monitoring Plans of those MPAs.”¹³³ Similarly, a 2019 Joint Meeting of the CEP and the Scientific Committee for Antarctic Research called for integration between ASPAs under the Environmental Protocol “with other tools available under the Environmental Protocol and other Antarctic Treaty

128 ATCM XL Report (2017), at para. 62.

129 CCAMLR Performance Review Panel Report (1 September 2008), at para. 7.

130 A joint workshop on MPAs was held in 2009.

131 *Second Performance Review of CCAMLR – Final Report of the Panel* (2017), at para. 27.

132 *Ibid.*, at 4.

133 CCAMLR 38 Report (2019), at para. 6.4.

System instruments.”¹³⁴ One delegation particularly called for “a ‘planned and integrated’ ... protected areas system which works across both the CEP and CCAMLR, and involves consortium groups of proponents across regional planning areas, covering the full range of marine and terrestrial areas.”¹³⁵

Joint meetings between different institutions, as proposed above, would allow an opportunity for direct discussions between relevant actors in a framework that did not prioritise the values of any single regime. Indeed, the concept of a joint meeting may not only provide focussed discursive space to explore mutually acceptable approaches to MPAs, but it could also lead to formal agreement upon shared frameworks for action, common guidelines or other joint instruments. In this context, it has been suggested that “the next stage in developing Southern Ocean MPAs is the joint designation of MPAs by CCAMLR and the ATCM.”¹³⁶ This would be a major step-change for practice in the region, but one that is both desirable and feasible.

There are examples from other areas of international law where international institutions have worked collaboratively not only to exchange information and adopt complementary actions, but to proactively develop joint instruments which form an integral part of all relevant regimes.¹³⁷ A good illustration is the negotiation and adoption of the Guidelines on Fair Treatment of Seafarers in the Event of a Maritime Accident by a Joint ILO/IMO Ad Hoc Expert Working Group and their subsequent adoption by the IMO¹³⁸ and the ILO.¹³⁹ The convening of a Joint Working Group is based upon an express power in the Agreement between the International Maritime Organisation and the International Labour Organisation which provides for “any questions of common interest” to be referred to a joint committee composed of “representatives appointed by each organisation.”¹⁴⁰ The direct involvement of delegations in these joint meetings, rather than just representatives of the secretariats,

134 Co-convenors' Report of the Joint SCAR/CEP Workshop on Further Developing the Antarctic Protected Area System (2019), at 5.

135 See Background Paper submitted by the United Kingdom to the Joint SCAR/CEP Workshop on Further Developing the Antarctic Protected Area System (2019). See also IUCN, *Marine Spatial Protection and Management under the Antarctic Treaty System: new opportunities for implementation and coordination*, ATCM Document IP 56 (2011), at 9.

136 Scott, *supra* note 56, at 135.

137 For a general discussion of such horizontal cooperation, see Harrison, *supra* note 9, at 259–268.

138 See IMO Legal Committee Resolution LEG.3(91) (2006).

139 See Minutes of the 296th Session of the Governing Body of the International Labour Organisation, Document GB.296/PV (2006), at para. 80.

140 Agreement between the International Maritime Organisation and the International Labour Organisation, Article 3.

means that they allow more than simply exchange of information about what each organisation is doing, but rather discussion about policy coordination. At the same time, the joint committee does not circumvent the institutional responsibilities of each organisation as it must report back to the appropriate bodies for formal confirmation of its work and any necessary action. In the case of the Joint Guidelines on Fair Treatment of Seafarers in the Event of a Maritime Accident, both institutions have kept this topic on the agenda since their adoption, with a view to monitoring developments and the possibility to reconvene the Joint Working Group remains an option for further collaborative action.¹⁴¹ This demonstrates that coordination can be approached as an ongoing process. Arguably, there are lessons that could be learned from such practices with a view to strengthening cooperation between the bodies within the Antarctic Treaty System to promote stronger coordination between the relevant institutions.

4 Towards Broader Cooperation and Coordination with Other Relevant Organisations

Whilst stronger intra-regional cooperation and coordination provides an important starting point for the integrated management of marine ecosystems, it does not necessarily ensure that MPAs are protected from all threats by all actors. Indeed, the work of the regional institutions overlaps with a number of other global and regional bodies, such as the International Maritime Organisation, the International Whaling Commission,¹⁴² the International Seabed Authority, other relevant regional fisheries management organisations,¹⁴³ and conservation treaty bodies.¹⁴⁴

The need for broader engagement with other international organisations is recognised within the Antarctic Treaty System, with both the Antarctic Treaty and CCAMLR calling for the establishment of “co-operative working

¹⁴¹ See e.g. IMO Assembly Resolution A.1056(27) (2012).

¹⁴² The International Whaling Commission has established a whaling sanctuary in the Southern Ocean.

¹⁴³ The Commission has memoranda of understanding with the South Pacific Regional Fisheries Management Organisation, the Commission on the Conservation of Southern Bluefin Tuna, the Southern Indian Ocean Fisheries Agreement, and the South East Atlantic Fisheries Organisation; see <https://www.ccamlr.org/en/organisation/cooperation-others>. See also CCAMLR Resolution 10/XII (Resolution on harvesting of stocks occurring both within and outside the Convention Area).

¹⁴⁴ E.g. 1979 Convention on the Conservation of Migratory Species; 1973 Convention on International Trade in Endangered Species.

relationships” with other inter-governmental organisations.¹⁴⁵ This is an obligation of conduct, which provides significant flexibility to design arrangements to facilitate interactions between relevant bodies.

This section will focus on the relationship between the Antarctic Treaty System and the International Maritime Organisation, which is the UN specialised agency responsible for developing shipping regulations.¹⁴⁶ Many vessels flying the flags of diverse nations navigate in the waters of the Southern Ocean. Whereas both the ATCM¹⁴⁷ and CCAMLR¹⁴⁸ have adopted their own measures to address pollution from ships operating in the Southern Ocean, these measures will not necessarily apply to all relevant vessels due to the limited membership of these institutions. The importance of the IMO in the present context is therefore its global membership¹⁴⁹ and its recognised competence in the regulation of shipping¹⁵⁰, which allows it to develop shipping standards in a far more effective manner compared to a regional body such as the ATCM or CCAMLR.¹⁵¹ As explained by the Antarctic and Southern Ocean Coalition, “the IMO is important for Antarctica because the Antarctic Treaty System is not able to regulate all vessels operating in Antarctic waters, and ships are the major source of transportation to and from Antarctica.”¹⁵² This has also been expressly recognised by the ATCM in its work on Antarctic Shipping which has engaged with the IMO “as a means of extending [the] applicability [of measures adopted by the ATCM] to members of the IMO that are not Antarctic Treaty Consultative Parties.”¹⁵³ At the same time, a transfer of decision-making to the IMO means that a broader range of interests may be reflected in the decision-making procedures of that organisation, which are structured around a

145 Antarctic Treaty, Article 3(2); CCAMLR, Article 23(3).

146 See 1948 Convention on the International Maritime Organisation.

147 See Protocol, Annex 4.

148 CCAMLR Conservation Measure 26-01(2019).

149 The IMO has 174 Member States and 3 Associate Members.

150 See A. Chircop, ‘The International Maritime Organisation’, in D. R. Rothwell, et al (Eds.), *The Oxford Handbook of the Law of the Sea*, 416–438 (Oxford University Press, Oxford, 2015). See also Harrison, *supra* note 9, at 154–199.

151 Indeed, Articles 94(5) and 211(2) of UNCLOS recognise that generally accepted international rules and standards adopted through the competent international organisation or diplomatic conference may become binding on all UNCLOS parties, regardless of whether they are a party to the treaty containing the rule or standard.

152 See <https://www.asoc.org/advocacy/antarctic-governance/international-maritime-organization>.

153 ATCM Decision 2 (1999).

different set of objectives, thus laying the ground for potential tension between the institutions.¹⁵⁴

There is no formal MOU between either the ATCM or the Commission and the IMO. Nevertheless, in practice, there has been ad hoc engagement between the regional institutions responsible for the Southern Ocean and the IMO since the early days of the Antarctic Treaty.¹⁵⁵ For example, the ATCM has encouraged cooperation between Antarctic Treaty Parties and the IMO, as well as inviting the IMO to attend sessions of the ATCM as an observer.¹⁵⁶ The ATCM has also expressly called for the IMO to adopt specific measures to protect the Southern Ocean¹⁵⁷, including special areas under Annexes I, II and V of MARPOL and a prohibition on the use and carriage of heavy fuel oil by vessels operating in the Antarctic Treaty Area.¹⁵⁸ More significant is the adoption of the Polar Code by the IMO, which entered into force on 1 January 2017 and introduces much broader protections for polar waters. Again, the ATCM was actively involved in the process leading to the adoption of this instrument¹⁵⁹ and it has encouraged “additional safety and environmental protection matters...”¹⁶⁰ The formulation of a Ballast Water Regional Management Plan for Antarctica, which was developed by the ATCM¹⁶¹, and subsequently adopted by the IMO Marine Environment Protection Committee¹⁶² and the Commission¹⁶³ is another clear example of coordination in this sector. Yet, successful coordination cannot necessarily be taken for granted and it has been pointed out in IMO discussions that “the activities of regional organizations in areas beyond national jurisdiction were a delicate matter since these organizations, with a restricted structure or membership, do not necessarily represent

154 See Hey, *supra* note 13.

155 See M. Weber, *Cooperation of the Antarctic Treaty System with the International Maritime Organisation and the International Association of Antarctica Tour Operators*, 2 *The Polar Journal* 372–390 (2012).

156 See Resolution 5 (2010) Co-ordination among Antarctic Treaty Parties on Antarctic proposals under consideration at the IMO.

157 See Recommendation XV-4 (1989).

158 ATCM Decision 8 (2005). See IMO Resolution MEPC.189(60) adopted on 26 March 2010, amending Annex I of the International Convention on the Prevention of Pollution by Ships by adding a new chapter including special requirements for the use or carriage of oils in the Antarctic Treaty Area.

159 See e.g. Resolution 3 (1998); Decision 4 (2004); Resolution 8 (2009). For broader discussion of the interactions between the ATCM and the IMO on the Polar Code and other relevant issues, see Weber, *supra* note 157, at 372–390.

160 ATCM Resolution 3 (2014).

161 ATCM Resolution 3 (2006).

162 IMO Resolution MEPC.163(56).

163 Commission Resolution 28/XXVII (2008).

the interests of the international community as a whole and could lead to the establishment of measures being applied to States who are not members of these regional organizations.”¹⁶⁴ It follows that successful engagement must involve engagement and persuasion, as the IMO cannot be expected to simply rubber stamp proposals advanced by a regional organisation. In this respect, the significant scientific evidence and operational expertise developed by the various institutions operating within the Antarctic Treaty System can be put to particular use in order to inform discussions at the global level, whilst recognising that the ultimate balancing of interests is the prerogative of the relevant IMO organs.

Most of the cooperation between the regional institutions and the IMO has related to shipping in general and there has been less focus on using tools available under IMO instruments to further protection of MPAs in the Southern Ocean, even though the CCAMLR General Framework expressly recognises the International Maritime Organisation as a key global actor which may be required to adopt measures to support the development of the CCAMLR MPA network.¹⁶⁵ Moreover, some ASPA/ASMA management plans do call for measures to minimise the impacts of shipping on the protected areas, such as avoiding anchoring in marine components of scientific zones and areas of environmental monitoring¹⁶⁶, areas to be avoided¹⁶⁷, or mandatory vessel reporting when entering certain areas¹⁶⁸, but such measures only apply to parties to the Antarctic Treaty and arguably to CCAMLR parties by virtue of Article 5(2) of CCAMLR.

One tool that may be useful in broadening the scope of such measures is the designation of Particularly Sensitive Seas Areas (PSSAs) in accordance with IMO Resolution A.982(24), which would also permit the adoption of associated protective measures, such as routeing measures, no anchoring zones, or areas to be avoided. PSSAs only provide protection against specific threats posed by international shipping but they are a useful tool to achieve integrated management when they are designated in conjunction with MPAs designated by other

164 Report of the Marine Environment Protection Committee on its 68th Session, IMO Document MEPC 68/21 (2015), at para. 10.27.

165 CCAMLR Conservation Measure 91/04(2011), at para. 10.

166 Admiralty Bay Management Plan, section 7(i). *See also* Port Foster, Deception Island, South Shetland Islands ASPA No 145 Management Plan, section 7(iv) “anchoring shall be avoided except in exceptional circumstances”; Terra Nova Bay, Ross Sea ASPA No 161 Management Plan, section 7(i): “anchoring is prohibited within the area.”

167 *See e.g.* the seasonal buffer zones around restricted areas under the Southwest Anvers Island and Palmer Basin ASMA No 7, section 7(i).

168 *See* Deception Island ASMA No 4 Management Plan, section 9(ii).

bodies.¹⁶⁹ There are currently no PSSAs on the high seas, but it is generally accepted that there is no impediment to the IMO adopting a high seas MPA, provided that it had the support of Member States.¹⁷⁰ Indeed, the designation of PSSAs in the Southern Ocean has been contemplated by states¹⁷¹ and the Antarctic and Southern Ocean Coalition has called for “a vulnerability assessment of the potential impacts to Antarctic waters from vessels ... to determine how to best to proceed to address any outstanding vulnerabilities.”¹⁷² In particular, the PSSA criteria could be usefully applied to those areas covered by existing MPAs in the Southern Ocean, whether established under the Environmental Protocol or CCAMLR, in order to determine whether the IMO should take measures, such as navigational restrictions, to support the objectives of these MPAs. Any state could in theory propose the designation of a PSSA in the Southern Ocean¹⁷³, although it would be stronger if the proposal came from the parties to CCAMLR or the Antarctic Treaty collectively.¹⁷⁴

5 Conclusions and Looking Forward

Whilst it is generally accepted that greater cooperation and coordination between international institutions is fundamental to the development of the law of the sea in general and the protection of the marine environment in particular, it has also been recognised that operationalising “cooperation at the practical level” is challenging.¹⁷⁵ Indeed, despite the fact that “the relatively strong inter-institutional linkages in the [Antarctic Treaty System], the broad objectives of its instruments and the broad mandates of the [international

169 J. Roberts, et al, *Area-based Management on the High Seas: Possible Application of the IMO's Particularly Sensitive Sea Area Concept*, 25 *International Journal of Marine and Coastal Law* 483–522 (2010), at 498.

170 See e.g. R. Churchill, ‘High Seas Marine Protected Areas: Implications for Shipping’, in R. Caddell and R. Thomas (Eds.), *Shipping, Law and the Marine Environment in the 21st Century*, 53–88 (Lawtext Publishing, Witney, 2013), at 73.

171 See e.g. Chairs Report – Antarctic Treaty Meeting of Experts on the Management of Ship-borne Tourism in the Antarctic Treaty Area (2010), at para. 75. See also Scott, *supra* note 56, at 136.

172 Antarctic and Southern Ocean Coalition, *Managing Antarctic Vessels – Avoiding Future Disasters*, Document ATCM XXXII IP 34 (2009), at 7.

173 See Roberts, et al, *supra* note 169, at 506.

174 See D. Freestone and V. Harris, ‘Particularly Sensitive Sea Areas beyond National Jurisdiction: Time to Chart a New Course?’, in M. H. Nordquist, et al (Eds.), *International Marine Economy: Law and Policy*, 322–361 (Brill, Leiden, 2017), at 352.

175 See ATCM Resolution 1(2006).

organisations]operating under them are particularly conducive to integrated (cross-sectoral) ecosystem management”¹⁷⁶, the interaction between these treaty regimes in practice reveals that integration is more challenging than an exclusive focus on the legal framework might suggest.

It is important to recognise that there has been progress in designating MPAs in the Southern Ocean, even if further steps are required. Indeed, there are potentially important lessons from this region for designing successful regime interaction between institutions in other regions. In particular, one can point to the early engagement between institutions in the designation of MPAs and the design of management plans in order to ensure that different interests and mandates are integrated. Moreover, such interactions between the ATCM and the Commission are automatic where there is an overlap between the two regimes and this form of coordination should be encouraged in other regions.

The challenge of effectively protecting biodiversity beyond national jurisdiction from multiple threats has been acknowledged by the international community and negotiations are currently underway for a new internationally legally binding instrument to promote the conservation and sustainable use of biological diversity in areas beyond national jurisdiction.¹⁷⁷ MPAs are a key theme of these negotiations, with the objective of enhancing cooperation and coordination in the use of MPAs and other area-based measures. The mandate of the conference is designed to ensure that the result “should not undermine existing relevant legal instruments and frameworks and relevant global, regional and sectoral bodies.”¹⁷⁸ Thus, existing regional bodies are likely to still have an important role to play in any future regime on this subject, albeit potentially subject to scrutiny by a global body charged with overseeing the implementation of the new agreement.¹⁷⁹ At the time of writing, the draft text of the proposed internationally legally binding instrument includes a provision requiring states to “make arrangements for consultation and coordination to enhance cooperation with and among relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies with regard to area-based management tools, including marine protected areas, as well as coordination among associated conservation and [management]

176 E. J. Molenaar, *Managing Biodiversity in Areas beyond National Jurisdiction*, 22 *International Journal of Marine and Coastal Law* 89–124 (2007), at 95.

177 See United Nations General Assembly Resolution 72/249 (24 December 2017).

178 *Ibid.*, at para. 7.

179 See K. Dalaker Kraabel, ‘The BBNJ PrepCom and Institutional Arrangements: The Hype about the Hybrid Approach’, in M. H. Nordquist, et al (Eds.), *The Marine Environment and United Nations Sustainable Development Goal 14: Life below water*, 137–172 (Brill, Leiden, 2019).

[sustainable use] measures adopted under such instruments and frameworks and by such bodies.”¹⁸⁰ This provision would appear to call for the development of the types of collaborative arrangements that have been discussed in this article. Such an obligation would be a welcome development, but it is not enough, as it does not account for the political challenges of cooperation or the progressive nature of collaborative activities.

In this respect, an analysis of how the MPA network in the Southern Ocean operates in practice also “provide[s] valuable insight into the environmental and political complexities of designating MPAs in [areas beyond national jurisdiction].”¹⁸¹ The experience of cooperation and coordination in this region underlines that regime interaction is not just a matter of legal linkages, although this is an important element, but it is also characterised by the interplay of the interests and values of the various actors involved in the regimes. Several powers that are available to promote cooperation and coordination under the relevant treaties have not been used in practice, in part due to ongoing political disagreements underpinning these legal regimes. It is therefore important to recognise that cooperation and coordination is an ongoing activity and there is a need for institutions to build up mutual trust and shared understanding over time.¹⁸² It follows that the nature of the arrangements for cooperation and coordination may themselves need to evolve. In terms of thinking about how the international legal framework could be developed in order to better promote cooperation and coordination between existing institutions, it is arguably not sufficient to simply require a mechanism to be set up, but such mechanisms must also be periodically reviewed, preferably involving independent and external expertise, in order to assess how coordination arrangements are operating in practice and what improvements could be made. There is evidence from other contexts that such review mechanisms can have a positive influence on the development of institutional arrangements in order to improve their effectiveness.¹⁸³ In the present context, a review process could provide an opportunity to draw upon best practices in inter-institutional

180 Revised draft text of an Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, Document A/CONF.232/2020/3 (18 November 2019), Article 15(3).

181 Gardiner, *supra* note 115, at 6.

182 See e.g. D. Johnson, ‘Can competent authorities cooperate for the common good: Towards a collective arrangement in the North-East Atlantic’, in P. A. Beckman and A. N. Vylegzhanin (Eds.), *Environmental Security in the Arctic Ocean*, 333–343 (Springer, Berlin, 2013), at 341.

183 See B. Haas, et al, *The Influence of Performance Reviews on Regional Fisheries Management Organisations*, 76 ICES Journal of Marine Science 2082–2089 (2019).

coordination, as well as a means for encouraging further experimentation in innovative inter-institutional coordination, for example through joint meetings and potentially the development of joint instruments, which could lead to stronger and more coherent regional MPA networks. It would therefore be helpful if a new international legally binding instrument on the conservation of marine biodiversity in areas beyond national jurisdiction included an obligation to carry out periodic reviews of any arrangements for consultation and coordination in order to facilitate this process, without necessarily dictating the outcome.¹⁸⁴

¹⁸⁴ For an example of the legalisation of institutional review processes, see e.g. 2012 Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean, Article 22.